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U.S. Patent Application Serial No. 09/577,657
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FILED SEPTEMBER 11, 2003

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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listing of claims in this application:

LISTING OF CLAIMS

Claims 1-28. Canceled.

Claim 29. (Currently Amended) An isolated DNA molecule comprising a nucleotide sequence encoding an N-methyl transferase of SEQ ID NO:1 and having the N-methyl transferase enzyme activities of 7-methylxanthine N3 methyl transferase, theobromine N1 methyl transferase, and paraxanthine N3 methyl transferase.

Claim 30. (Currently Amended) An isolated DNA molecule comprising a modified nucleotide sequence which is 90% homologous ~~hybridized under stringent conditions to the complementary strand of the~~ nucleotide sequence of Claim 29, where the polypeptide encoded by said modified nucleotide sequence maintains all of said N-methyl transferase enzyme activities ~~and where hybridization of the modified nucleotide sequence to the complementary strand is carried out by the steps of~~

i. ~~preparing a blocking reagent by preparing a solution consisting of 100-x Denhard't solution, 2 % (Weight/Volume) bovine serum albumin, 2 % (Weight/Volume) Ficll 400, 2 % (Weight/Volume) polyvinyl pyrrolidone at a 5-fold concentration and diluting the resultant solution to 1/20;~~